

SPICA: 3.5 m Space Infrared Telescope for Mid- and Far-infrared Astronomy

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We present the current status of the SPICA (Space Infrared Telescope for Cosmology and Astrophysics) project. SPICA is a unique mission with a large, cooled telescope; we propose to cool a 3.5 m class telescope down to 4.5 K by moderate mechanical cryogenic coolers with the help of effective radiative cooling (i.e. SPICA will not carry any liquid Helium). The cooled, large telescope makes SPICA optimum for high-resolution mid- to far-infrared observations with unprecedented sensitivity. We present some of the preliminary results of the technical development programs for SPICA. The target launch year of SPICA is early 2010s.